

REMARKS

Claims 20, 22, and 24 through 36 were rejected in the Office Action dated September 7, 2010. Claims 22 and 36 are canceled. Claims 20 and 24 through 35 are pending. Reconsideration of the application is requested.

I. Rejection of Claims under 35 U.S.C. § 103

Claims 20, 22, and 24 through 36 were rejected under 35 U.S.C. § 103(a) as unpatentable over various primary references in view of U.S. Patent Publ. No. 2007/0060894 (Dai et al.) and various secondary references. Applicants respectfully disagree with the rejections but have amended independent claim 20 to clarify various features in an effort to expedite prosecution. Claims 22 and 36 have been cancelled. The Examiner's proposed combinations do not result in a device that includes each limitation of the currently amended claims, and it is therefore requested that the rejections be reconsidered.

The device of Dai et al. in combination with various primary references does not render claim 20 obvious under 35 U.S.C. § 103(a). Dai et al. describes a medication dispensing apparatus. The apparatus may include a conical one-way valve 80. The valve 80 is elastomeric and is said to contract and expand small amounts without losing its seal when the plunger moves more or less than intended during dose setting. Para. 0044. Only when the injection chamber piston is forcefully thrust down during injecting is the medicine pressurized sufficiently to open the one way valve 80 to allow medicine to pass and enter the proximal tip of the injection needle. Para. 0044.

Claim 20 recites a self-opening closure system comprising a plug that is pushed forward upon movement of the plunger toward the front end of the cartridge. This element is not disclosed or suggested by Dai et al. or any of the other references cited by the Examiner. The Examiner seems to indicate that the valve 80 of Dai et al. is comparable to a plug. Office Action, p. 3. Dai et al. does not describe or suggest a plug as required by claim 20, but rather describes a "one-way valve." The plug of claim 20, in contrast, may be pushed forward upon movement of the plunger toward the front of the cartridge. As described at paragraph 0036 of the U.S. Patent Publication of the present application, in one embodiment, when plugs 60 are pushed forward, outlets 22a and 24a are opened, thereby allowing material components in

compartments 22 and 24 to flow into mixing barrel 26. Even if the valve 80 of Dai et al. could be characterized as a plug, the valve is not pushed forward upon movement of a plunger, as required by claim 20, and would not function as intended if it were pushed forward. The primary references similarly do not disclose or suggest a self-opening closure system including a plug that is pushed forward upon movement of the plunger toward the front end of the cartridge. Accordingly, the combination of various primary references with the device of Dai et al. does not render independent claim 20 obvious under 35 U.S.C. § 103(a) and it is respectfully requested that the rejection be reversed.

Claims 24 through 35 include each limitation of claim 20. Lokhandwala et al., Fukui, Simonton, and Ferguson do nothing to remedy the deficiencies of Dai et al. described above with reference to claim 20. As a result, claims 24 through 35 are similarly in condition for allowance and Applicants respectfully request that the rejections of these claims also be reversed.

II. Conclusion

All outstanding rejections are believed to have been met and overcome, and a notice of allowance for all pending claims is respectfully solicited. If a telephone discussion with the Applicants' representative would be helpful in resolving any remaining matters related to this application, the Examiner is invited to contact the undersigned at 651-736-4050.

Respectfully submitted,

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Date

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